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EX PARTE PRESENTATION

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

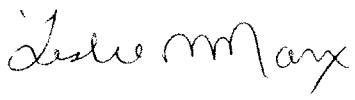
Dear Ms. Dortch,

On September 20, 2011, Sandro Brusco, Professor of Economics at State University of New York at Stony Brook, Giuseppe (Pino) Lopomo, Professor of Economics at Duke University, and Leslie M. Marx, Professor of Economics at Duke University, met with the following people: Ruth Milkman, Paula Cech, Martha Stancill, Margaret Wiener, Craig Bomberger, Bill Sharkey, Katie King, Evan Kwerel, Marius Schwartz, Steve Rosenberg, and Jim Schlichting.

Professors Brusco, Lopomo, and Marx discussed their recent research results. They have studied a theoretical mechanism design problem in an environment in which a buyer with a fixed budget has value for each of n objects, each of which is produced by only one seller. The buyer would like to maximize the total value from the objects purchased minus the payments made, subject to the budget constraint. They have solved for the optimal deterministic, ex-post incentive compatible, ex-post individually rational mechanism. This mechanism is depicted in the attached figures, which were shown at the meeting. The optimal mechanism can be implemented through a simple reverse auction procedure. In the symmetric case with two bidders, bidding starts at the budget amount B and continues to decrease towards $\frac{B}{2}$ until one bidder drops out, in which case the buyer purchases from the remaining bidder at the current bid. If the bid reaches $\frac{B}{2}$ and both bidders remain, then the buyer purchases from both bidders with a payment of $\frac{B}{2}$ to each.

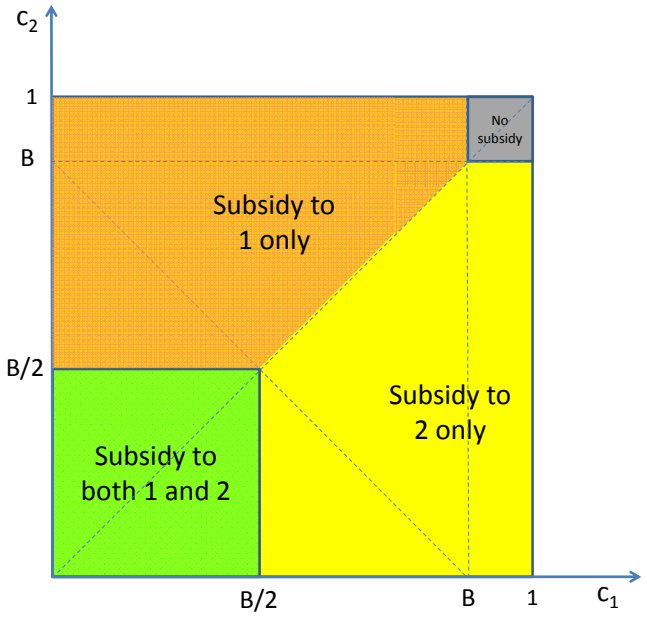
Professors Brusco, Lopomo, and Marx discussed the implications of their results for the distribution of funds from the Universal Service Fund to promote broadband. The results suggest that a reverse auction may be an optimal mechanism for distributing such subsidies.

Sincerely,

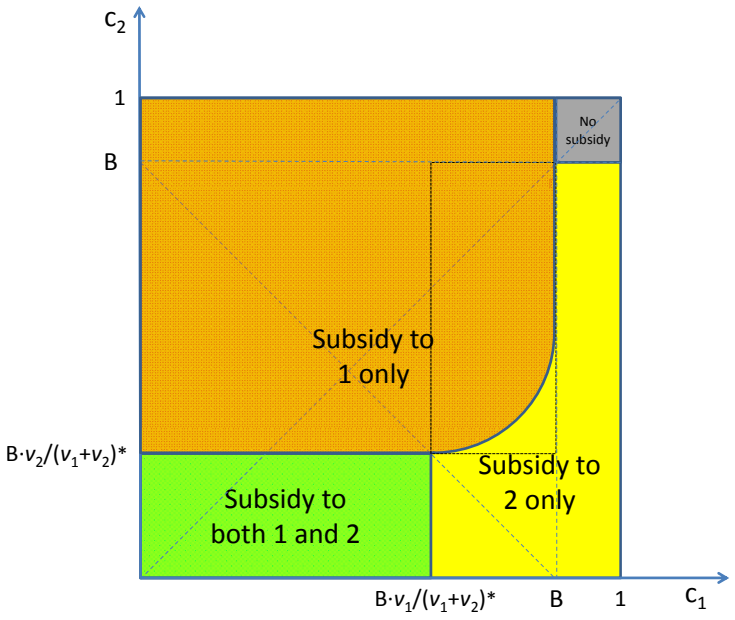


Leslie M. Marx

Optimal mechanism with two symmetric bidders



Optimal mechanism with two asymmetric bidders



*Conjectured critical cost values